



Revision Number:

Purchasing Agent: DEBBIE GUNDERSEN

**Item: GATEWAY DEVICES FOR RADIOS, TELEPHONES OR SATCOM ETC.
(WSCA)**

Vendor: 94951A Raytheon/JPS
5800 Departure Drive
Raleigh, NC 27616

Internet Homepage: www.jps.com

Telephone: (919) 790-1011 Ext. 1140

Fax number: (919) 790-1456

Contact: Marcia Gatlin

Email address: marcia.gatlin@jps.com

Brand/trade name: Kenwood

Price: See Attached

Terms: Net 30

Effective dates: 04/28/04 through 10/29/06

Days required for delivery: 30 Days ARO

Price guarantee period: Discounts good through term of contract

Minimum order: None

Min shipment without charges: FOB Destination

Other conditions:

Renewal Options: Potential contract extensions through 10/29/13

NOTE: THIS IS A NEW CONTRACT

This Statewide contract is an "AR" (Authorization Required) contract. Authorization is required before purchase can be made. The Authorization is obtained from Floyd Ritter at 801-538-3316 in ITS. Order may be placed only after authorization is received. This contract covers only those items listed in the price schedule. It is the responsibility of the agency to ensure that other items purchased are invoiced separately. State agencies will place orders directly with the vendor (creating a PG in Finet) and make payments for the same on a PV referencing the original PG. Agencies will return to the vendor any invoice which reflects incorrect pricing.



AUTHORIZATION REQUIRED: DAS/ITS/RADIO SHOP (DEPARTMENT OF ADMINISTRATIVE SERVICES) ADMINISTERS PURCHASES FROM THIS CONTRACT. STATE AGENCIES (EXECUTIVE BRANCH) MUST COORDINATE THEIR PURCHASE THROUGH DAS/ITS (APPLIES TO EQUIPMENT ONLY, NOT ACCESSORIES). STATE AGENCIES MAY CONTACT DAVID LEE AT 801-537-9251 OR FLOYD RITTER AT 801-538-3316 TO COORDINATE THEIR PURCHASE.

Item	Description	Qty.	Unit	Percentage off Mfg List Price
1	Base Station	1-4	EA	27%
		5-10	EA	27%
		11+	EA	27%
2	Repeater	1-4	EA	27%
		5-10	EA	27%
		11+	EA	27%
3	Portable Radio	1-49	EA	27%
		50+	EA	27%
4	Mobile Radio	1-20	EA	27%
		21-100	EA	27%
		101+	EA	27%
5	Desktop	1-20	EA	27%
		21-100	EA	27%
		101+	EA	27%
6	Console Unit	1-9	EA	
		10+	EA	
7	Support Services	1	HR	\$65.00
8	Installation Services	1	HR	\$65.00
9.	Repair Services	1	HR	\$90.00
10.	Accessories		EA	27%
11.	List other Equipment		EA	



STATE OF UTAH CONTRACT NUMBER: **AR1782**

Apr 28, 2004

Item	Description Portable Analog	Mfg Name	Brand/Model#	Total Price
12.	High VHF 136-174 Quality Category D	Kenwood	TK-280K/K2	\$498.50
13.	UHF 450-470 Quality Category C	Kenwood	TK-380K	\$498.50

Specifications for ACU1000

Description
RDI-1/DSP-1/AP-1 RX Audio Input
Input Impedance: Balanced or unbalanced 600 ohms or 10k ohms.
Input level: -30 dBm to + 10 dBm, adjustable.
Frequency Responses: 100 Hz to 3200 kHz \pm 2dB
RDI-1/DSP-1 TX Audio Output RDI-1/DSP-1/AP-1 TX Audio Output
Output Impedance: Balanced or unbalanced 600 ohms.
Output Level: -20 to +11 dBm, adjustable.
Frequency Response: 100 to 3200 Hz \pm 2dB
RDI-1/DSP-1/AP-1 COR Input
Input Impedance: 47K ohm pullup to + 5V.
Polarity: Active low or high, selectable.
Threshold: + 2.5V nominal.
Protection: up to \pm 100 VDC
RDI-1/DSP-1/AP-1 PTT Output
Output Type: Open drain, 47k ohm pullup to +5V.
Polarity: Active low or high, selectable.
Maximum Sink Current: 100 mA
Maximum Open Circuit Voltage: + 60 VDC
PSTN-1 Telephone Interface
Telephone Line Levels: Adjustable -24 dBm to 0 dBm in 3 dB steps.
Hybrid Type: DSP adaptive hybrid; -30 dB broadband balance.
Frequency Response: 100 Hz to 3200 Hz \pm 2 dB
VOX Threshold: Selectable -19, -16, -13, and -10 dB relative to telephone line level.
VOX Hangtime: Selectable 0.5, 1.0, 1.5, and 2.0 seconds.
General/ Environmental
Control Processor Module Serial Port: RS-232 DCE connector (female DB0). Baud rates: 1200, 2400, 4800, or 9600, software selectable.
Power Supply Front Panel (PSM-1A): Power on/off Switch; AC on, DC on, +12 VDC, - 12 VDC LEDs.
Handset/Speaker Fount Panel (HSP-2): Speaker, Speaker on/off switch, 1/8 inch Headphone jack, Volume control, PTT LED, Fault LED, Handset jack, 3X4 Keypad.
Control Processor Front Panel (SPM-2): Master, Slave, and Fault LEDs.
Radio Interface Front Panel (RDI-1): Signal, COR, PTT, and Fault LEDs.
Tel Interface Front Panel (PSTN-1): Monitor, Ring, Connect, VOX, and Fault LEDs: L1 and L2 RJ11C Connectors.

High VHF 136-174 Quality Category D

	STANDARD SPECIFICATI ON	BIDDER'S SPECIFICATI ON
GENERAL		
Number of Channels/Modes/Personalities	2	250
Operational Bandwidth/Maximum Frequency Separation, MHz	38	38
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	2.5
Channel Spacing, kHz	12.5 / 25 / 30	12.5 / 25 / 30
TRANSMITTER		
RF Power Output, Watts	1/5 selectable (Low/High)	1/5
Radiated Spurious & Harmonic Emission, dB	-60	-70
FM Noise, dB	-40	-45
Audio Distortion, % maximum	5	3
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
RECEIVER		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-60	-75/-65
Spurious and Image Rejection, dB	-70	-70
Intermodulation, dB	-70	-70
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	5
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-	-
Price FOB Destination freight prepaid & included in price		\$498.50
OTHER INFORMATION:		
Prices are based on Manufacturer's price list entitled:		Kenwood USA
Prices are based on price list quoted above dated:		7/1/2003
Discount percentage represented by this price is		27%
Delivery - expressed in days after Receipt of Order		Less than 60 Days
Warranty Period - in excess of that required by the specifications (in days)		365 Days
% Tax required		0%
Components added to the above model to meet required specifications:		

REQUIRED OPTIONS		
Part Number	Description	Price
KSC-19	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ *	\$25.55
INCLUDED	Position Rotary Channel/Mode Select Switch Option	
INCLUDED	Low Battery Alert Tone Option	
TK-280K3 / K4	Dual Tone Multi Frequency encoder and Key Pad Option	\$24.09
KLH-75B / 76B	Leather Carrying Case Option	\$30.66
KMC-25	External Speaker/Microphone Option	\$67.16
OPTIONAL OPTIONS		
KVC-5	Vehicular Charger/Console Option	\$248.20
INCLUDED	Flashing EEPROM	
INCLUDED	Provision for Field Software Upgrade	
NO	Secure Encryption Option	
KVC-8A	RF Power Amplifiers Option	\$646.05
INCLUDED	Paging Decoder Option	
INCLUDED	Emergency Button/Switch Option	
INCLUDED	Programmable Button/Switch Option	
INCLUDED	Push-to-talk ID Transmission Option	
INCLUDED	Alphanumeric Display Option	

UHF 450-470 Quality Category C

	STANDARD SPECIFICATI ON	BIDDER'S SPECIFICATI ON
GENERAL		
Number of Channels/Modes/Personalities	14	250
Operational Bandwidth/Maximum Frequency Separation, MHz	20	40
Frequency Stability (-30 °C to + 60 °C), PPM	± 2.5	± 2.5
Channel Spacing, kHz	12.5 / 25	12.5 / 25
TRANSMITTER		
RF Power Output, Watts	1/4 selectable (Low/High)	1/4 selectable (Low/High)
Radiated Spurious & Harmonic Emission, dB	-60	-70
FM Noise, dB	-40	-40
Audio Distortion, % maximum	5	3
Audio Response (per TIA/EIA 603)	+1, -3	+1, -3
RECEIVER		
Sensitivity, EIA 12 dB Sinad, dBm	-116	-119
Selectivity, adj. channel (dB), 25/12.5 kHz	-70/-60	-70/-62
Spurious and Image Rejection, dB	-70	-70
Intermodulation, dB	-70	-70
Speaker Audio Output, milliwatts	350	500
Audio Distortion, % maximum	5	5
Static BER sensitivity @ 5% referenced @ 12.5 KHZ	-	-

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REQUIRED OPTIONS		
Part Number	Description	Price
KSC-19	Battery Charger/Vehicular Battery or Nominal 120 VAC, 60 HZ *	\$25.55
INCLUDED	Position Rotary Channel/Mode Select Switch Option	
INCLUDED	Low Battery Alert Tone Option	
INCLUDED	Alphanumeric Display Option	
TK-380K4	Dual Tone Multi Frequency encoder and Key Pad Option	\$36.50
KLH-75B / 76B	Leather Carrying Case Option	\$30.66
KMC-25	External Speaker/Microphone Option	\$67.16
OPTIONAL OPTIONS		
KVC-5	Vehicular Charger/Console Option	\$248.20
INCLUDED	Flashing EEPROM	
INCLUDED	Provision for Field Software Upgrade	
NO	Secure Encryption Option	
KVC-8A	RF Power Amplifiers Option	\$646.05
INCLUDED	Paging Decoder Option	
INCLUDED	Emergency Button/Switch Option	
INCLUDED	Programmable Button/Switch Option	
INCLUDED	Push-to-talk ID Transmission Option	



*****REPORTS*****

The contractor will submit yearly reports to the State Purchasing Agent (Debbie Gundersen) showing quantities and dollar volume of purchases by each agency and political subdivision. This report will be due by 04/27 of each year.

FINET COMMODITY CODE(S):

72574000000-TWO-WAY RADIO, PORTABLE, INCLUDING VEHICLE RADIO RELAY
SYSTEMS

72578000000-TWO-WAY RADIO RECEIVERS, TRANSMITTERS, TRANSCEIVERS: MOBILE
AND BASE STATION (AUDIO TRANSFER)

72582000000-TWO-WAY RADIO SUPPLIES, PARTS, AND ACCESSORIES